

Dongfeng Cummins Curve and Datasheet

Engine Type: ISDe210 30(Truck)

Curve Number: FR92156

Rev00 Date of Issue: 05/20/2007



Dongfeng Cummins Engine Co.,Ltd

Engine Performance Curve FR92156

EURO 3

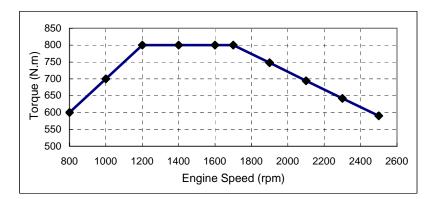
Engine Model: ISDe210 30 Engine Configuration: D313003BX03

Advertised Power: 155 kW @ 2500 rpm CPL: 1995

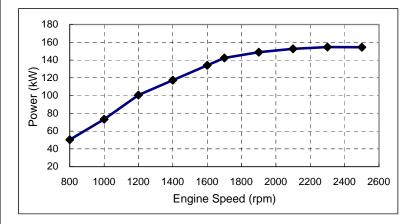
210 PS @ 2500 rpm Peak Torque: 800 N.m @ 1400 rpm

Displacement: 6.7L Bore: 107 mm Aspiration: Turbocharged & Charge Air Cooled

Cylinders: 6 Stroke: 124 mm Fuel System: Bosch (HPCR)



que
N.m
600
700
800
800
800
800
748
694
642
590



	Power
rpm	kW
800	50
1000	73
1200	101
1400	117
1600	134
1700	142
1900	149
2100	153
2300	155
2500	154

Performance data shown is nominal, and is to 80/1269/EEC(as amended) conditions of 990mbar barometric pressure and 25 deg C air intake temperature.

All data are based on the engine operating with fuel system, water pump, lubricating oil pump and with inle restriction and exhaust restriction at or below datasheet limits. Not included are compressor,fan,alternator, optional equipment and driven components.



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Engine Performance Curve FR92156

Compression Ratio: 17.3:1 Air Intake System Max. temperature rise between ambient air and turbo air inlet: - ℃ 15 Max. intake restriction with dry type air cleaner, with clean filter - kPa 2.9 Medium Duty: - kPa 3.7 Meav. intake restriction with dirty filter: - kPa 6.2 Charge Air Cooling - ℃ 30 Max. temperature rise between ambient air and intake manifold: - ℃ 30 Max. △P between turbo out and manifold in: - kPa 13.5 Intake pipe size normally acceptable: - mm dia 65 Exhaust System Max. back pressure imposed by complete exhaust system: - kPa 10 Exhaust pipe size normally accepable: - mm dia 75 Cold Start Performance - mm dia 75 Min. unaided cold start temperature: - 12 ℃ @ 120 average rpm Min. aided cold start temperature: - 24 ℃ @ 120 average rpm	General	
Max. temperature rise between ambient air and turbo air inlet:		GB 17691-2005
Max. temperature rise between ambient air and turbo air inlet: - ℃ 15 Max. intake restriction with dry type air cleaner, with clean filter - kPa 2.9 Meavy Duty: - kPa 3.7 Max. intake restriction with dirty filter: - kPa 6.2 Charge Air Cooling Max. temperature rise between ambient air and intake manifold: - ℃ 30 Max. △P between turbo out and manifold in: - kPa 13.5 Intake pipe size normally acceptable: - mm dia 65 Exhaust System - kPa 10 Max. back pressure imposed by complete exhaust system: - kPa 10 Exhaust pipe size normally accepable: - mm dia 75 Cold Start Performance - 12 ℃ 2120 average rpm Min. unaided cold start temperature: - 12 ℃ 2120 average rpm Merformance Data - rpm 600 - 800 Maximum no load governed speed: - rpm 2850 Maximum no load governed speed: - rpm 4200 Maximum altitude for continuous operation: - m 4700 Clutch engagement torque at 800rpm: - Nm 610 When using exhaust brakes:	Compression Ratio:	17.3:1
Max. intake restriction with dry type air cleaner, with clean filter AkPa 2.9 Heavy Duty: - kPa 3.7 Max. intake restriction with dirty filter: - kPa 6.2 Charge Air Cooling Max. Lemperature rise between ambient air and intake manifold: - ℃ 30 Max. △P between turbo out and manifold in: - kPa 13.5 Intake pipe size normally acceptable: - mm dia 65 ixhaust System - kPa 10 Exhaust pipe size normally accepable: - kPa 10 Exhaust pipe size normally accepable: - mm dia 75 cold Start Performance - mm dia 75 Min. unaided cold start temperature: - 12 ℃ @ 120 average rpm Min. aided cold start temperature: - 24 ℃ @ 120 average rpm verformance Data - rpm 600 - 800 Maximum no load governed speed: - rpm 2850 Maximum over speed capability(15secs max.): - rpm 4200 Maximum altitude for continuous operation: - n - n 4700 Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes:	Air Intake System	
Heavy Duty: - kPa 3.7 Max. intake restriction with dirty filter: - kPa 6.2 Charge Air Cooling - ℃ 30 Max. △P between turbo out and manifold in: - kPa 13.5 Intake pipe size normally acceptable: - mm dia 65 Exhaust System - kPa 10 Max. back pressure imposed by complete exhaust system: - kPa 10 Exhaust pipe size normally accepable: - mm dia 75 Cold Start Performance - mm dia 75 Min. unaided cold start temperature: - 12 ℃ @ 120 average rpm Min. aided cold start temperature: - 24 ℃ @ 120 average rpm Performance Data - rpm 600 - 800 Maximum no load governed speed: - rpm 2850 Maximum altitude for continuous operation: - rpm 4200 Maximum altitude for continuous operation: - n 4700 Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413	·	15
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Max. temperature rise between ambient air and intake manifold: - ℃ 30 Max. △P between turbo out and manifold in: - kPa 13.5 Intake pipe size normally acceptable: - mm dia 65 **Cixhaust System **Max. back pressure imposed by complete exhaust system: - kPa 10 Exhaust pipe size normally accepable: - mm dia 75 **Cold Start Performance Min. unaided cold start temperature: -12 ℃ @120 average rpm Min. aided cold start temperature: -24 ℃ @120 average rpm **Performance Data Idle Speed: - rpm 600 - 800 Maximum no load governed speed: - rpm 2850 Maximum over speed capability(15secs max.): - rpm 4200 Maximum altitude for continuous operation: - m 4700 Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413	Max. intake restriction with dirty filter: kPa	6.2
Max. temperature rise between ambient air and intake manifold: - ℃ 30 Max. △P between turbo out and manifold in: - kPa 13.5 Intake pipe size normally acceptable: - mm dia 65 **Cixhaust System **Max. back pressure imposed by complete exhaust system: - kPa 10 Exhaust pipe size normally accepable: - mm dia 75 **Cold Start Performance Min. unaided cold start temperature: -12 ℃ @120 average rpm Min. aided cold start temperature: -24 ℃ @120 average rpm **Performance Data Idle Speed: - rpm 600 - 800 Maximum no load governed speed: - rpm 2850 Maximum over speed capability(15secs max.): - rpm 4200 Maximum altitude for continuous operation: - m 4700 Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413	Charge Air Cooling	
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Max. back pressure imposed by complete exhaust system: Exhaust pipe size normally accepable: Min. unaided cold start temperature: Min. unaided cold start temperature: Min. aided cold start temperature: Max. back pressure imposed by complete exhaust system:	Max. △P between turbo out and manifold in: kPa	13.5
Max. back pressure imposed by complete exhaust system: - kPa 10 Exhaust pipe size normally accepable: - mm dia 75 Sold Start Performance Min. unaided cold start temperature: Min. aided cold start temperature: -24 ℃ @ 120 average rpm Min. aided cold start temperature: -24 ℃ @ 120 average rpm Performance Data Idle Speed: -rpm 600 - 800 Maximum no load governed speed: -rpm 2850 Maximum over speed capability(15secs max.): -rpm 4200 Maximum altitude for continuous operation: -m 4700 Clutch engagement torque at 800rpm: -N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: -kPa 413	Intake pipe size normally acceptable: mm dia	65
Exhaust pipe size normally accepable: mm dia 75 Cold Start Performance Min. unaided cold start temperature:12 ℃ @ 120 average rpm Min. aided cold start temperature:24 ℃ @ 120 average rpm Performance Data Idle Speed: rpm 600 - 800 Maximum no load governed speed: rpm 2850 Maximum over speed capability(15secs max.): rpm 4200 Maximum altitude for continuous operation: m 4700 Clutch engagement torque at 800rpm: N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: kPa 413	Exhaust System	
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Min. unaided cold start temperature: Min. aided cold start temperature: Performance Data Idle Speed: Idl	Exhaust pipe size normally accepable:	ı 75
Min. aided cold start temperature:	Cold Start Performance	
Min. aided cold start temperature:	Min. unaided cold start temperature:12 °C @	120 average rpm
Idle Speed: - rpm 600 - 800 Maximum no load governed speed: - rpm 2850 Maximum over speed capability(15secs max.): - rpm 4200 Maximum altitude for continuous operation: - m 4700 Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413	Min. aided cold start temperature:24 $^{\circ}$ @	120 average rpm
Maximum no load governed speed: -rpm 2850 Maximum over speed capability(15secs max.): -rpm 4200 Maximum altitude for continuous operation: -m 4700 Clutch engagement torque at 800rpm: -N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: -kPa 413	Performance Data	
Maximum over speed capability(15secs max.): - rpm 4200 Maximum altitude for continuous operation: - m 4700 Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413	Idle Speed: rpm	600 - 800
Maximum over speed capability(15secs max.): - rpm 4200 Maximum altitude for continuous operation: - m 4700 Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413	Maximum no load governed speed:rpm	2850
Maximum altitude for continuous operation: Clutch engagement torque at 800rpm: N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413		4200
Clutch engagement torque at 800rpm: - N.m 610 When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: - kPa 413		
When using exhaust brakes: Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: kPa 413	·	
Exhaust pressure, at 2850rpm, at turbocharger outlet, must not exceed: kPa 413		0.10
		412
Approximate engine retardation: - kW TBD	, , , , , , , , , , , , , , , , , , , ,	_
	Approximate engine retardation:	IRD

Engine	Oil	Air to	Air Fro	m Turbo	Exhaust	Exhaust	Fuel	Coolant	Heat Re	jection	Friction
Speed RPM	Pressure kPa	Turbo m³/min	Flow kg/min	Pressurek Pa	Flow m³/min	Temp ℃	Consumption kg/hr	Flow I/min	Coolant kW	Air kW	Power kW
2500	311	14.5		148		401	220	215	77.7	35.2	34.0
2300	313	14.1		156		468		187	72.4	29.3	28.0
1400	229	8.07		117		467		125	59.2	14.2	13.0

All values within ±5% Base engine data refer to Datasheet D313003BX03

All data subject to change without notice. Dongfeng Cummins Engine Co., Ltd